

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently amended) A method of folding a bottom of a package, which comprises a sleeve of packaging material with a transversal seal at ~~[[the]]~~ an end of ~~[[the]]~~ a bottom forming portion of the package, said bottom forming portion having the shape of a fin, the method comprising ~~the steps of~~

folding a middle portion of the fin such that primary flaps are created at the sealed transversal ends of the fin,

breaking corners on the folded fin in ~~[[the]]~~ boundary regions between the primary flaps and ~~[[the]]~~ an edge between the ~~[[part]]~~ bottom forming portion of the sleeve ~~forming the bottom~~ and the rest of the sleeve, such that secondary flaps are folded in between the primary flaps and ~~[[the]]~~ a remaining part of the fin, the secondary flaps on each side of each primary flap thereby being folded essentially towards each other,

folding the primary flaps towards each other, and

pressing the primary flaps towards the ~~remaining part~~ folded middle portion of the ~~bottom forming part of the sleeve~~ fin.

2. (Previously presented) A method according to claim 1, wherein the bottom of the package is folded into an octagonal shape.

3. (Previously presented) A method according to claim 1, wherein the sleeve has a longitudinal seal and the fin is pre-folded away from the longitudinal seal prior to the primary flap-creating folding step.
4. (Previously presented) A method according to claim 3, wherein the fin is heated during the pre-folding.
5. (Currently Amended) A method according to claim 1, wherein the fin is heated in a number of locations, where the fin is arranged to be sealed during the pressing ~~[[down-]]~~step, along its length, prior to the pressing~~[[down]]~~ step.
6. (Currently Amended) A method according to claim 1, wherein a first partible external forming tool retains the package during the pressing~~[[down]]~~ step.
7. (Previously presented) A method according to claim 6, wherein the first partible external forming tool is opened and closed along the contours of a parallelogram.
8. (Withdrawn - Currently amended) A device for folding a bottom of a package, which package comprises a sleeve of packaging material with a transversal seal at ~~[[the]]~~ an end of ~~[[the]]~~ a bottom forming portion of the package, said bottom forming portion having the shape of a fin, which device comprises
 - a first folding unit for folding a middle portion of the fin such that primary flaps are created at the sealed transversal ends of ~~[[it]]~~ the fin,
 - a breaking unit for breaking corners on the folded fin in ~~[[the]]~~ boundary regions between the primary flaps and ~~[[the]]~~ an edge between the ~~[[part]]~~ bottom forming

portion of the sleeve ~~forming the bottom~~ and the rest of the sleeve, such that secondary flaps are folded in between the primary flaps and ~~[[the]]~~ a remaining part of the fin, the secondary flaps on each side of each primary flap thereby being folded essentially towards each other,

a second folding unit for folding the primary flaps against each other, and

a pressing unit for pressing the primary flaps towards the ~~remaining part~~ folded middle portion of the ~~bottom forming part of the sleeve~~ fin.

9. (Withdrawn) A device according to claim 8, which is arranged to fold the bottom into an octagonal shape.

10. (Withdrawn) A device according to claim 8, wherein the breaking unit comprises four knives arranged in positions essentially on the corners of a rectangle, such that each respective knife is able to operate on a respective side of a respective primary flap.

11. (Withdrawn) A device according to claim 8, wherein the sleeve has a longitudinal seal and the device comprises means for pre-folding the fin away from the longitudinal seal.

12. (Withdrawn) A device according to claim 11, which comprises first means for heating the pre-folded fin.

13. (Withdrawn) A device according to claim 12, wherein the means for pre-folding the fin and the first means for heating the pre-folded fin are arranged in a first sub-assembly.

14. (Withdrawn) A device according to claim 13, wherein at least one first cylinder connected to a respective at least one first cam wheel is arranged to control the movement of the first sub-assembly and members thereof.

15. (Withdrawn) A device according to claim 8, which comprises a first pair of brackets for holding the breaking unit and a second pair of brackets for holding a second forming tool, which brackets are each provided with cam surfaces, wherein one shaft is arranged on each side of the pairs to move along the cam surface on each side of the pairs and thereby simultaneously control the movement of the breaking unit and the second forming tool.

16. (Withdrawn) A device according to claim 8, which comprises at least one flap support which is arranged to flatten the primary flaps against the folding unit.

17. (Withdrawn) A device according to claim 8, which comprises second means for heating a number of locations on the folded fin along its length, in which locations the fin is arranged to be sealed.

18. (Withdrawn) A device according to claim 17, wherein the second heating means are supplied with hot gas from a hot gas source via a sliding swivel connection.

19. (Withdrawn) A device according to claim 17, wherein the at least one flap support is arranged to hold the primary flaps during the heating of the fin.

20. (Withdrawn) A device according to claim 17, wherein the breaking unit, the folding unit, the flap support and the second means for heating the fin are arranged in a second sub-assembly.

21. (Withdrawn) A device according to claim 20, wherein at least one second cylinder connected to a respective at least one second cam wheel is arranged to control the movement of the second sub-assembly and members thereof.

22. (Withdrawn - Currently amended) A device according to claim 8, which comprises a first partible forming tool for retaining the package during the pressing [[down]] of the flaps towards the part of the bottom forming part of the sleeve.

23. (Withdrawn) A device according to claim 22, wherein each part of the first partible forming tool is arranged to be opened and closed essentially along the contour of a parallelogram.

24. (Withdrawn) A device according to claim 22, wherein the first partible forming tool, the pressing unit and the second folding unit are arranged in a third sub-assembly.

25. (Withdrawn) A device according to claim 24, wherein at least one third cylinder connected to a respective at least one third cam wheel is arranged to control the movement of the third sub-assembly and members thereof.

26. (Withdrawn) A device according to claim 8, wherein at least one cylinder is arranged to control the movement of at least one moving part comprised in the device, said at least one cylinder being connected to one end of a respective at least one lever, which lever in turn is fixed in the other end and arranged to abut against a respective rotating cam wheel, and the movement of which is controlled by the same.

27. (Withdrawn) A device according to claim 26, wherein the at least one cylinder is arranged to pull the lever towards the centre of the cam wheel.

28. (Withdrawn) A device according to claim 27, wherein the at least one lever and the at least one cam wheel are arranged to cyclically lift the at least one cylinder.

29. (Withdrawn) A device according to claim 26, wherein at least two cylinders are provided, each cylinder being controlled via a respective lever by a respective cam wheel, the at least two cam wheels being arranged on a common rotating cam shaft.

30. (Withdrawn) A device according to claim 26, wherein the lever is arranged to abut against the cam wheel at a point which is located a distance from the fixed end of one third of the distance between the fixed end and the cylinder.

31. (Withdrawn - Currently amended) A device according to claim 26, wherein the moving parts comprise at least one of the following:

[[a]] the first folding unit for folding the fin such that primary flaps are created at the sides of the fin,

[[a]] the breaking unit for breaking corners which creates secondary flaps on the folded fin,

[[a]] the second folding unit for folding the primary flaps against each other,

[[a]] the pressing unit for pressing ~~[[down]]~~ the primary flaps towards the folded middle portion of the fin ~~remaining part of the sleeve~~,

means for pre-folding the fin,

first means for heating the pre-folded fin,

second means for heating the folded fin, and

a first partible forming tool for supporting the package during the pressing down of the primary flaps.

32. (Currently Amended) A package comprising a sleeve of packaging material with a longitudinal seal, and a transversal seal at ~~[[the]]~~ an end of ~~[[the]]~~ a bottom forming portion of the package, said bottom forming portion having the shape of a fin, wherein the bottom is folded such that

a middle portion of the fin is folded towards the ~~[[part]]~~ bottom forming portion of the sleeve ~~forming the bottom~~, and

the sealed transversal end portions of the fin are folded towards each other and the folded middle portion of the fin, wherein

in regions between ~~[[the]]~~ sides of the sealed transversal end portions of the fin, and ~~[[the]]~~ edges between the ~~[[part]]~~ bottom forming portion of the sleeve ~~forming~~

~~the bottom~~ and the rest of the sleeve, folds are provided on each side of each sealed transversal end portion and folded towards the fin and the ~~the~~ [[part]] bottom forming portion of the sleeve ~~forming the bottom~~, in between the sealed transversal end ~~portion~~ portions and the ~~the~~ [[part]] bottom forming portion of the sleeve ~~forming the bottom~~, such that the bottom has an essentially octagonal shape.

33. (Withdrawn) A package according to claim 31, wherein the fin is folded away from the longitudinal seal.

34. (New) A method according to claim 1, wherein the sleeve has a circular cross section.